

REMARKS

Claims 8-26 are pending. Claims 1-7 are cancelled and new claims 11-26 are added with this response. Reconsideration of the application in light of the above amendments and the following remarks is respectfully requested.

I. REJECTION OF CLAIM 8 UNDER 35 U.S.C. § 102(e)

Claim 8 was rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,930,634 (Hause et al.). Withdrawal of the rejection is respectfully requested for at least the following reasons.

Claim 8 is directed to a method for forming a LDMOS transistor, wherein a boron dopant species and an arsenic dopant species are implanted into a deep n-well through the same opening in a photoresist. Claim 8 also comprises a hard bake of the photoresist. The photoresist opening wherein both of these successive implants are performed resides over the deep n-well region of the LDMOS transistor, as illustrated, for example, in Figs. 1a and 1b.

Hause et al. do not teach implanting a boron dopant species and an arsenic species through the same opening as claimed. Rather, Hause et al. disclose using a first (114) and second (130) arsenic implant (same species) in the deep n-well region. Although, it has been indicated that column 12 lines 5-10 identifies an alternate polarity device using boron, such a device would then require using an n-type substrate and a first and second boron implant (same species), compared to the different species implants of the present invention. Therefore Hause et al. fail to anticipate the invention of claim 8. Accordingly, withdrawal of the rejection is respectfully requested.

II. REJECTION OF CLAIMS 9 and 10 UNDER 35 U.S.C. § 103(a)

Claims 9 and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,930,634 (Hause et al.). Withdrawal of the rejection is respectfully requested for at least the following reasons.

As highlighted above, independent claim 8 is not taught by Hause et al. Claims 9 and 10 depend upon claim 8, and each provide further limitation thereto. Further the Examiner has acknowledged that Hause et al. fails to explicitly teach heating to temperatures between 75 and 200°C in the hard bake of claim 9, and does not teach performing the thermal oxidation processes at temperatures greater than 800°C in the LOCOS formation of claim 10. Accordingly, claims 9 and 10 are patentable over Hause et al. for the same reason, and withdrawal of the rejection is respectfully requested.

III. NEW CLAIMS

New claims 11-14 are added depending on claim 8, and providing further limitations on the boron species implantation. Claim 12 identifies a limitation of the boron implant occurring before the hard bake as supported, for example, by page 9, lines 4-7 and 16-18 of the specification. Claims 13 and 14 identify limitations of the process ordering of the arsenic implant and the formation of the LOCOS isolation structures.

New claims 15-20 are added directed to a method for forming a LDMOS transistor, wherein the independent claim 15 is similar to that of independent method claim 8, however claim 15 adds further limitations.

New claims 21-26 are added directed to a method for forming a LDMOS transistor, wherein the independent claim 21 is similar to that of independent method claims 8 and 15, however claim 21 adds other limitations.

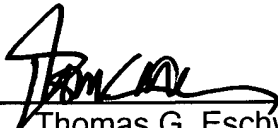
IV. CONCLUSION

For at least the above reasons, the claims currently under consideration are believed to be in condition for allowance.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should any fees be due as a result of the filing of this response, the Commissioner is hereby authorized to charge the Deposit Account Number 20-0668, TI-35362.

Respectfully submitted,
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CERTIFICATE OF MAILING (37 CFR 1.8a)

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Assistant Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: November 9, 2005


Christine Gillroy